

REMARKS

The Office Action of January 21, 2004 presents the examination of claims 1-11. All of the previous claims are canceled, being replaced by claims 12-54 herein.

Support for new claims

The recitations of the new claims are supported generally by the original claims 1-11. In particular, the lower limit to the amount of component (c) included in claim 12 is recited in original claim 7. Alkyl peroxyesters in their various forms and species (claims 13-17 and 49-53) are described in the specification at, e.g. page 9, lines 6-20. A "base" paste and a "catalyst" paste (claim 12) are described at, e.g. page 5, lines 29-31.

Rejections as to form of the claims

Claim 11 is rejected under 35 U.S.C. § 101 as being an improper "use" claim. Claim 11 is canceled, rendering this rejection moot. Claim 54 is a properly written method of fabrication claim.

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for a variety of reasons as set forth at pages 2-3 of the Office Action. Claims 1-11 are canceled, rendering most of these grounds of rejection moot.

The term "derivative" is however retained in the present claims. Applicants submit that "derivatives" of chemical compounds are known by one of ordinary skill in the art to be modifications of a stated compound. As to "barbituric acid derivatives" as in claim 12, such are known in the art as described in the specification at page 8, lines 26-27. Thus, while broad, the term "derivative" is not indefinite.

Accordingly, the standing rejection should not be applied against the new, amended claims.

Rejection over prior art

Claims 1-11 stand rejected under 35 U.S.C. § 103(a) over GB '326 in view of Klee '863 and Jochum '998. This rejection is respectfully traversed as it might be applied to the now pending claims. Reconsideration and withdrawal thereof are requested.

The Examiner cites GB '326 for teaching of dental material kits that include calcium hydroxide, an organic resin binder, a redox initiator system and plasticizer. Klee '863 is cited to add the feature of barbituric acid and malonyl sulfamide and peroxyacid initiators. Finally, Jochum '998 is also cited for description of a barbituric acid and malonyl sulfamide initiator.

On the other hand, the present invention comprises not only the redox initiator system, but also an accelerator component. Furthermore, the various components of the composition are separated among two different pastes.

If the dental material of Jochum '998 comprise side-by-side an organic peroxide, a copper compound as an accelerator and malonyl sulfamide or barbituric acid derivative as an initiator, then the composition must be stored as three separate components in order to have suitable storage stability. In such a case, mixing of the three components just prior to use in a dentist's office is not practical, as the present commercially available mixers are able to mix only two components at a time.

Klee '883 does not solve this problem, as his two-component system is made up of a powder and a liquid, and the presently available mixers are for mixing of pastes. The components separated in Klee '883 comprise (a) the peroxide and monomer, which is a liquid and (b) a metal and proton donor (*i.e.* barbituric acid or amine), which are in a powder form. Component (b) of Klee '883 is stable only because it is in the form of a powder. If produced as a paste, the metal and proton donor of component (b) would react and so would not be stable during storage. Thus, like in Jochum '998, the components of Klee '883 would have to be separated into three compositions to be stable if they were formulated into pastes.

The present invention provides a kit that is stable during storage and allows convenient, just before use mixing in a dentist's office using the presently available mixing apparatus. This advantage is not enjoyed by the compositions disclosed by Jochum '998 or by Klee '883 nor obtained by their combination.

The primary reference GB '326 is not relevant to the present invention. GB '326 discloses an initiator-accelerator system that is a combination of benzoyl peroxide and an amine co-catalyst. There is no disclosure or suggestion of any redox initiator system, much less one comprising a barbituric acid derivative and/or malonyl sulfamide and any specific organic peroxide according to the present invention.

For the reasons explained above, Applicants submit that the combination of GB '326, Klee '883 and Jochum '998 fails to establish *prima facie* obviousness of the invention as set forth in claims 12-53. Accordingly, the instant rejection should not be applied against the present claims.

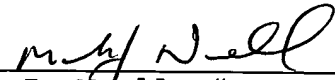
The present application well-describes and claims patentable subject matter. The favorable action of allowance of the pending claims and passage of the application to issue is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Mark J. Nuell, #36,623

DRN/mua
0475-0201P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000